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Scholarship in Action:  
The Case of the  
**Team Learning Collaborative**



Boyd F. Richards, PhD  
Baylor College of Medicine

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**Objectives**

- Recognize that as medical educators, we can engage in forms of scholarship besides research
- Recognize the value of involvement in scholarly communities, regardless of our form of scholarship
- (Recognize the value of team learning)

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Who is most likely to get promoted at your institution?



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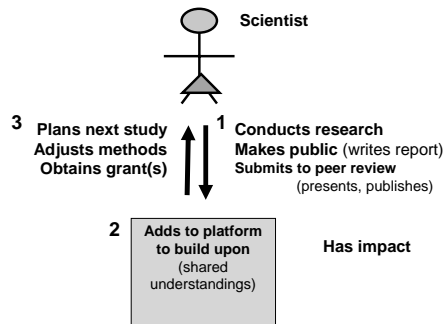
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### Scholarship of Research



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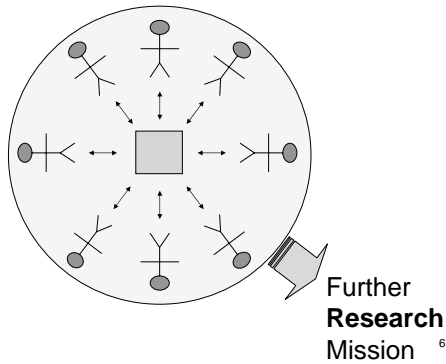
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### Research Community



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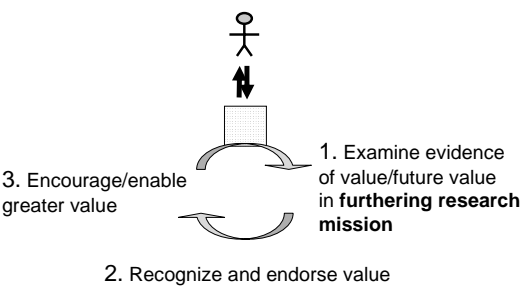
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### Promotion of Scientists



1. Examine evidence of value/future value in **furthering research mission**

2. Recognize and endorse value

3. Encourage/enable greater value


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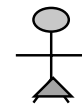
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### Proposition:

The same process can/does apply to medical educators.



Medical Educator


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# Four Assertions

about  
Scholarship Within Education


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1

As educators, we have made a commitment to **further the educational missions** of our respective institutions.



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The **quality of the methods** we use to further those missions matter (i.e., they influence outcomes); therefore, we should strive to improve them.



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We can **improve our methods** (and subsequent outcomes) **through participation in communities**.



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Participation in scholarly communities can **advance our careers** and the careers of others.



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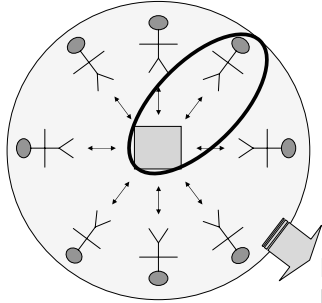
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### Community of Educational Scholars



Further  
**Education**  
Mission <sup>14</sup>



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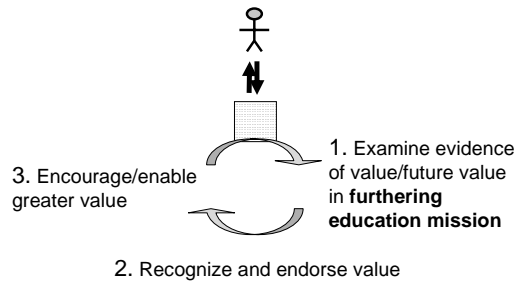
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### Promotion of Educators



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What other forms of scholarship are there?

**Boyer:**

- Research
- Integration
- Application
- Teaching

**Categories of Educational Contributions used at BCM:**

- Teaching and Evaluation
- Educational Leadership
- Enduring Educational Materials
- Educational Research




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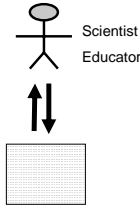
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What makes our contributions scholarly?

**Glassick et al:**

1. Clear goals
2. Adequate preparation
3. Appropriate methods
4. Meaningful results
5. Effective presentation  
(within a community; enables “peer review”)
6. Reflective critique



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**Glassick Criteria: Research versus Teaching**

Criteria	Applied to research	Applied to teaching
Clear goals	Is purpose of study clear? Is it important to field?	Are teaching goals specific? Do goals reflect needs of learners?
Adequate preparation	Does scholar reveal understanding of literature, new methods, etc?	Is teacher prepared to teach effectively? Has teacher kept abreast of new techniques?
Appropriate methods	Is study design adequate? Does study have sufficient statistical power; appropriate sampling, etc?	Are “best practices” used? Are techniques used effectively and flexibly?
Meaningful outcomes	Do results contribute to literature? Does researcher achieve goals?	Did learners perform as expected? Does strategy serve as model for others?
Effective presentation	Acceptable for publication? Enables grant reviewer to understand ideas?	Does teacher effectively share lessons learned with peers?
Reflective critique	Is researcher always assessing work and looking for ways to improve?	Does teacher solicit and effectively use evaluations from learners and peers?




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## The Case of the Team Learning Collaborative

- Describe team learning (also known as Team-based Learning or TBL)
- Describe growth of the collaborative (through individuals sharing within the community)
- Highlight role of Glassick's criteria
- Illustrate impact on individuals
- Illustrate diversity of scholarship



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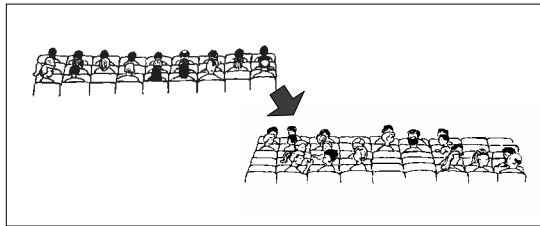
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**Team Learning:** a teacher-directed method for incorporating **small-group active participation within a single classroom**



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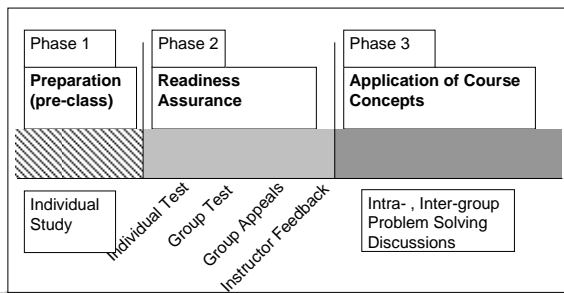
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## Three Phases of Team Learning



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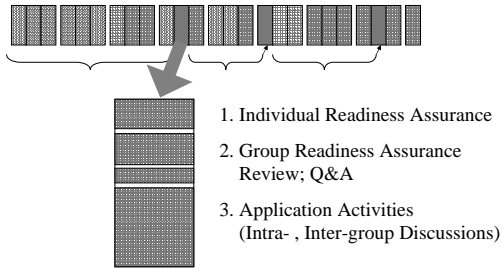
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### Example: Human Physiology Course



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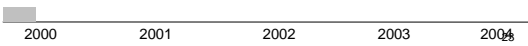
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### Building the Collaborative:

- Initial interest
- Experimentation
- Increased recognition of potential
- Grant from FIPSE (US Dept of Ed)



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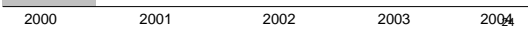
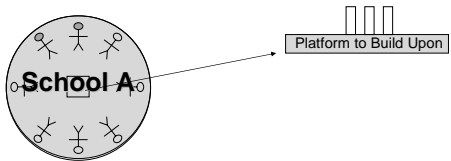
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### Building the Collaborative: Phase 1

- Initial interest
- Experimentation
- Increased recognition of potential
- Grant from FIPSE (US Dept of Ed)



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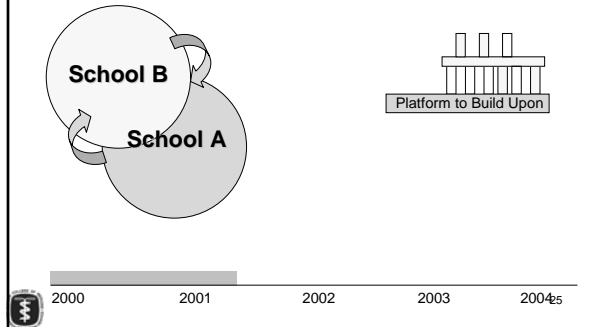
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Building the Collaborative: Phase 2



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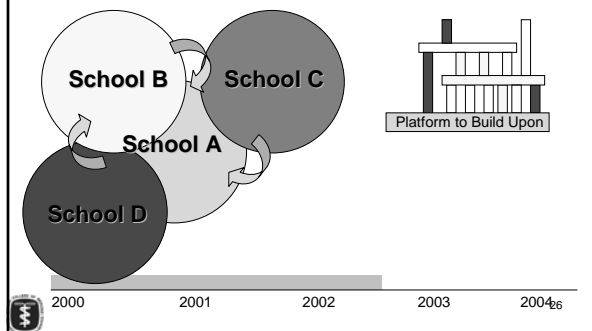
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Building the Collaborative: Phase 3



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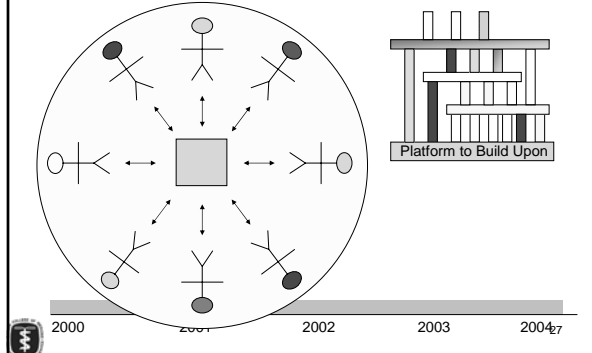
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Building the Collaborative: Phase 4



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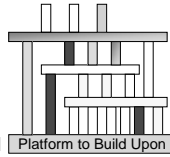
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### Platform to Build Upon:

- Outcome indicators (surveys, scales)
- Presentations
- Training techniques
- Publications
- Workshops
- Enduring Materials (Cases)



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### Role of Glassick's Criteria:

- A experiments, refines methods;
- A demonstrates to B
- B sets goal to pilot
- A trains B; helps B with methods
- B experiments
- AB compare experiences;
- AB make revisions, continue experimentations
- B demonstrates to C and D
- CD set goals to pilot
- AB train CD
- A helps C with methods (D works alone)
- CD experiment
- C shares experiences with AB
- CA plan joint experiment
- D has neg. experience; decides to try again
- D seeks help from B
- D experiments with better results
- ABCD compare experiences, make revisions
- ABCD demonstrate to EFG.....



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### Role of Glassick's Criteria:

- A experiments, refines methods
- A demonstrates to B
- B sets goal to pilot
- A trains B; helps B with methods
- B experiments
- AB compare experiences
- AB make revisions, continue experimentation
- B demonstrates to C and D
- CD set goals to pilot
- AB train CD
- A helps C with methods (D works alone)
- CD experiment
- C shares experiences with AB
- CA plan joint experiment
- D has neg. experience; decides to try again
- D seeks help from B
- D experiments with better results
- BD compare experiences, D makes revisions
- ABCD demonstrate to EFG.....

- Clear goals
- Adequate preparation
- Appropriate methods
- Meaningful results
- Effective presentation
- Reflective critique



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**Impact on Individuals: A Physician**

1

"Team learning has been the most significant influence on my career. It has brought the "fun" back into teaching.

Students once slept through didactics; they are now engaged during every session. They come to class prepared, studying beforehand from books they previously never purchased.

I get to know the students better as I see them interacting.

Scores on the NBME subject exam have significantly improved.

Team learning has led to collaborations with peers in and outside my institution. I have assisted colleagues in setting up team learning courses. I have published and presented my results nationally. I am inundated with requests for materials, to give workshops, or do consultations. Team learning has so many advantages over conventional methods, I regret I don't have the time to help more people learn about it."



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**Impact on Individuals: A Basic Scientist**

2

"Baylor's first team learning workshop came just at the right time for my institution. We believed that the LCME would cite us for insufficient student-centered learning. We began a monthly team learning interest group. With Baylor's help, we conducted a local workshop. We instituted team learning in a limited manner in 2001-2002.

It was a disaster, but we learned a lot about what did and didn't work. We presented at AAMC and Baylor's second annual workshop. In 2002-2003, we successfully began a new team learning longitudinal course.

Team learning is now a modest staple within the curriculum. Students still worry about grading issues but in general, things are going well.

The team learning collaboration has made my education research career. I have learned a lot and hopefully contributed to others. It has expanded my research from my discipline into educational scholarship. Because I led the school's team learning interest group, I became the person identified with the method. As a result of this exposure, I was appointed a member, and eventually chair, of our Education Policy Committee."



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**Impact on Individuals: A Medical Educator**

3

"I can say that, first, team learning has connected me to a new group of education professionals in a way that has not happened for a while.

Secondly, it has opened a new avenue of potential research interests, especially in the area of professionalism development in small group settings.

And finally, it has given a real and demonstrated meaning to the concept of collaboration within a community of scholars."



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**Impact on Individuals: A Physician**

4

"I was asked by a colleague to assist her in a randomized control trial study of team learning. From this experience, I found team learning to require a deeper understanding of the material even from me, and more advance preparation. It has made me so much more aware of learner engagement. Now I am much more in tune with trying to engage the learner in each teaching session, and can see how to do it so much more effectively. It also allows me to give constructive feedback to others to improve their ability in this area.

Along with other things, team learning has peaked my interest in medical education and I have recently become associate program director..

In the last 2 weeks, I discussed with 2 other faculty my frustrations with having all these ideas but no support. Because of the team learning study, and my deeper exposure to medical education, I am now aware of this deficiency in our system. Now the 3 of us hope to push even harder for ancillary support to accomplish scholarship in our respective areas.

Overall, team learning has been a wonderful experience. I am hopefully participating in my first national workshop this November. I have been involved in a randomized controlled trial. I am discovering a whole new exciting world of academic medicine. "



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**Impact on Individuals: A Basic Scientist**

5

"So the experience with team learning for me overall has been interesting and mixed. On the one hand the initial negative response of students was shocking and extremely stressful. On the other, I still find great potential in the exercises and I think I'm working bugs out in the way we do them such that they become not only viable but valuable for our students.

Although having been through the wringer initially, I'm feeling quite positive about the exercises now. I presented a poster at the 2004 IAMSE meeting on the student response to team learning in HCB, and will be writing it up and submitting it hopefully in the next few months. We also intend to write-up the faculty experience."



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**Impact on Individuals: A Basic Scientist**

6

"Participating in the team learning collaborative exposed me to a completely different group of faculty. I was introduced to others doing educational research and who were very experienced. This introduced me to possible topics for research and the various approaches (quantitative vs. qualitative) to educational research.

The success of the team learning project increased my visibility around the country and several times schools specifically asked for me to work with them on team learning. I believe that this increased my prestige within my department and if it did not, I at least felt that it did.

My work with team learning was one of the reasons that I was able to move to a new school and become department chair. On many an occasions our Executive Dean has described to visitors my experience with team learning as one of the reason that they wanted to hire me. Now that I am here, he uses me as an example of how the educational environment is being improved. "



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## Impact on Individuals: A Basic Scientist

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"At the workshop, it became apparent that the TL method could remedy our problems. I had two other faculty members dissatisfied with our current small group format and willing to give this a try, so it was a 'no brainer' to convert our small group sessions to a TL format.

We did a full-scale implementation right away with 12 TL sessions during our 9-week course and had the TL work count 25% of the course grade. The faculty and the students were very positive about the use of TL in the course. We have continued to use TL for three years with some tweaking, but essentially the same format.

As a group, the faculty using TL have learned quite a bit about what works and doesn't work. The interactions we have between the faculty here as well as with those at other institutions have been very helpful.

We have presented a report of our TL experience and have a paper in press. I have also, of course, shared our experience with others here in TL workshops. "



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## Diversity of Scholarship:

- **Research—Generating new understandings.**
  - Designs: randomized control trials, cohort, pre-test post-test
  - Methods: quantitative, qualitative, **mixed**
  - Statistics: correlation, t-test, analysis of variance
  - Disseminations: publications, presentations, dialogue
- **Teaching—Applying new understandings effectively**
  - Acquiring and improving teaching methods
  - Expanding appreciation for instructional principles
- **Enduring Materials—Making understandings available**
  - Website repository of materials
- **Leadership—Inspiring and empowering others**
  - Recruiting new educators
  - Inspiring others to experiment and improve
  - Working to challenge the status quo



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## My recommendations:

1. Commit to the idea that there are many forms of scholarship.
2. Join/form communities to help improve your methods.
3. Work on methods (issues/questions) that matter.
4. Actively contribute to a "platform to build upon" within the communities.
5. Adhere to Glassick's criteria.
6. Document contributions.
7. Advocate for institutional endorsement of all forms of scholarship.



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### Scholarship of Teaching:

- The scholarship of teaching invites faculty to bring their habits, skills, values, and methods and work together to build a greater collective intelligence about the best ways to promote learning in the many varied and unpredictable circumstances of teaching today.

Pat Hutchings, Carnegie Foundation, 2004



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### Methods that Matter to me:

- Role and optimization of streaming videos of lectures.
- Alternative strategies for competency assessment.
- Best practices for promoting and assessing professionalism.
- Use of simulation in mindful practice and assessment.
- Systems for enhancing peer review of educational scholarship.
- Cost efficient ways to make learners leaders.



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### Role of Advocacy:

- "These more hopeful stories underline how important it is for faculty who take up new kinds of scholarship to be strong advocates for what it is they're doing and explain in every way possible why it is both intellectually and professionally serious.

Huber et al, February 2004



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Everyone can do something:

I am only one.  
But still I am one.  
I cannot do everything.  
But still I can do something;  
And because I cannot do everything  
I will not refuse to do the something  
that I can do.

Edward Hale



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Questions:

- How do you handle assigning "credit" or authorship when working in a collaborative?
- Is there a difference in value between presenting results within a local community as compared to publishing them in an international journal?
- Should educational scholars have the same expectations as research scholars about getting grant funding?
- How can educational scholars best document and/or present evidence of their accomplishments?



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